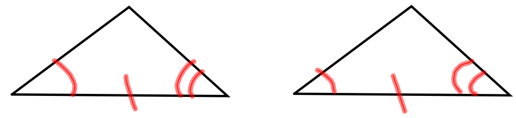
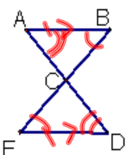
4-4 Prove Triangles Congruent by SAS and HL
4-5 ASA and AAS

Theorem 4.5 HL (Hypotenuse-Leg)-If the hypotenuse and a leg of one right Δ are ≅ to the hypotenuse and one leg of another right Δ, then the Δs are ≅.

Postulate 21 ASA-If 2 angles and the included side of one Δ are ≅ to 2 angles and the included side of another triangle, then the triangles are ≅.

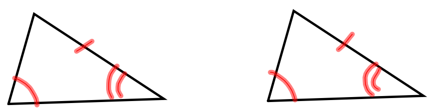


Given: $\overline{AB} \parallel \overline{ED}$; $\overline{AB} \cong \overline{ED}$
Prove: ΔABC ≅ ΔDEC



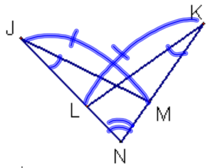
S.	R.
① ~	① Given
② ∠E ≅ ∠B, ∠D ≅ ∠A	② Alt. Int ∠s thm
③ ΔABC ≅ ΔDEC	③ ASA

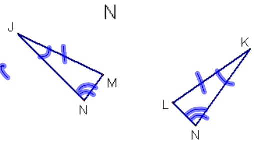
Theorem 4.6 AAS-If 2 angles and a non-included side of one Δ are ≅ to 2 angles and a non-included side of another Δ, then the Δs are ≅.



4.6 → CPCTC

Given: $\angle K \cong \angle J$; $\overline{KL} \cong \overline{JM}$
Prove: $\overline{LN} \cong \overline{MN}$



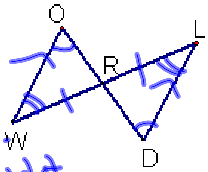


△KLN △JMN

S	R
① ~	① Given
② ∠N ≅ ∠N	② Reflexive
③ △KLN ≅ △JMN	③ AAS
④ $\overline{LN} \cong \overline{MN}$	④ CPCTC

*

Given: $\overline{WO} \parallel \overline{LD}$; R is the midpoint of $\overline{WL}$
Prove: $\overline{OR} \cong \overline{DR}$



S	R
① ~	① Given
② ∠O ≅ ∠D, ∠W ≅ ∠L	② Alt int ∠s thm
③ $\overline{WR} \cong \overline{RL}$	③ def of midpt
④ △WOR ≅ △LDR	④ AAS
⑤ $\overline{OR} \cong \overline{DR}$	⑤ CPCTC

HW
p245-246 #s 35-37
p252-255 #s 3-5, 7, 33, 34